

## REMARKS

A Response to the Initial Office Action was due by May 17, 2005. A request for a three-month extension of time and the associated fee are enclosed. Accordingly, this Amendment is timely filed.

Reconsideration of this application, as amended, is respectfully requested. By this Amendment, the serial number of a related application is being added to the Cross Reference To Related Applications, and claims 1-5, 7 and 10 are being amended to more particularly point and distinctly claim the subject invention. Claims 1-11 remain in this case.

In the Initial Office Action, claims 3-6 were rejected under 35 U.S.C. 112, 2<sup>nd</sup> paragraph, as indefinite because the recitation of "supplementary air outlet" was considered a double inclusion. By this Amendment, the phrase "additional air outlet" is being substituted for "supplementary air outlet" in claim 3. The revised terminology is believed to clearly avoid the double inclusion objection. Accordingly, the Examiner is requested to reconsider and withdraw this rejection.

Claims 1-10, as originally presented, stand rejected under 35 U.S.C. 102(a) or (e) as allegedly anticipated by Hilberer (U.S. Patent 6, 540,308) and under 35 U.S.C. 102(b) as allegedly anticipated by Beck (U.S. Patent 6,276,761), Blanz (U.S. Patent 5,678,900), EP0689117 or EP083183. With regard to the former rejection, the Examiner refers to FIG. 1, and with respect to the latter rejections, the Examiner states that these "documents each show a well known multi-circuit compressed air breaking control device for a parking and service brake with an air drier and auxiliary systems."

Claim 11 stands rejected under 35 U.S.C. 103(a) as allegedly obvious over Blanz.

These rejections, to the extent they are deemed applicable to the claims as now presented, are respectfully but most strenuously traversed.

The present invention is directed to an improved unitary air treatment device for supplying pressure regulated compressed air not only to the service brake system of an industrial vehicle but also directly to an actuator or actuators of the vehicle's parking brake system, and/or an actuator or actuators of the vehicle's pneumatic suspension system, and/or to pneumatic actuator or actuators of an auxiliary system of the vehicle.

Previously air treatment devices situated on the outlet side of a compressor supplied compressed air to dispersed service brake circuits, parking brake circuit and other pneumatic auxiliary circuits of an industrial vehicle.

For example, on existing vehicles, an air treatment device situated at the outlet side of a pneumatic compressor delivers a supplied pressure, which is conveyed, via dedicated lines, up near to the actuators used to release the parking brake. More specifically, these lines supply pneumatic components, such as cocks and valves, which, in turn, deliver a suitable pressure to the actuator. The cocks are generally operated manually by the driver; hence, the air treatment device of the prior art does not directly supply the actuator or actuators of the parking brake circuit.

Similarly, earlier air treatment devices supply compressed air to a set of electrically operated valves near a pneumatically suspended axle. These distributed valves are operated on the basis of information from sensors situated near the suspended axle.

The same kind of architecture is also used for various other auxiliary pneumatic circuits. The existing architecture thus has the disadvantage of a localized installation of the various components used for each of the different functions. The dispersion of these various components and the proliferation of the pneumatic connections, particularly for connection with the chassis and the cab of the motor vehicle, generate numerous risks of leakage and of improper contacts, together with problems of installation and of maintenance.

One of the problems that the present invention seeks to solve is that of the complexity of the pneumatic circuits and of the control circuit. This is accomplished by centralizing, at the air

treatment device, control of the compressed air supplied directly to the actuator or actuators of the parking brake system, and other auxiliary systems.

In other words, the parking brake system and other auxiliary systems are operated directly by the air treatment device situated on the outward side of the compressor, rather than by a special-purpose functional assembly dispersed to various points on the vehicle. Operation of the parking brake is to be understood as meaning not only the supply the actuators with compressed air pressure, but also the taking account of specific information that allows or forbids the release of the parking brake, on the basis on numerous items of information originating, in particular, from the cab of the vehicle.

Thus, the various electropneumatic components, such as the electrically operated valves that supply the parking brake actuator are incorporated into the air treatment device situated on the outward side of the compressor, and are no longer, as they were in the prior art, spread throughout the vehicle.

The unitary air treatment device of the present invention includes the various electropneumatic components responsible for releasing the parking brake, as well as incorporating the control logic for these components into the command and control unit of the device. Similarly, the unitary air treatment device may include electrically operated valves, which directly supply the actuator or actuators of the pneumatic suspension system of an axle and/or other auxiliary pneumatic equipment. Again, control of these valves is by the electronic command and control unit of the same device.

Because the controls for the various electropneumatic components are incorporated into one and the same device, the supervision of the pneumatic systems is improved, and diagnostic and maintenance operations are made easier.

In the prior art references applied by the Examiner, compressed air is delivered by a device connected to the air compressor. All of these devices supply reservoirs feeding remote air consumers or circuits. The air consumers or circuits include dispersed electrically operated

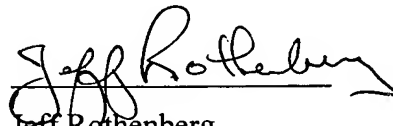
valves, which deliver the appropriate pressure to pneumatic actuators for the brake system, or suspension, or auxiliary systems. All of the cited documents disclose this kind of device, including outlets connected to remote reservoirs. See, for example, column 10, lines 7-10 of Hilberer and column 4, lines 43-45 and lines 53-54 of column 4 of Beck.

As described above, the present invention works in a very different way. Indeed, the device connected to the air compressor includes the electrically operated valves and directly delivers the appropriate pressure to the remote actuator or actuators. There is no teaching or disclosure of this approach in any of the applied references.

The pending claims have been amended to highlight these distinctions. Accordingly, applicants believe that the claims as now presented clearly distinguish from the applied prior art and are in condition for allowance. Such action is respectfully requested.

If it would advance the prosecution of this application, the Examiner is cordially invited to contact applicant's representative at the below listed telephone number.

Respectfully submitted,



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